Water for Texas 2012

What is the plan?

The Water for Texas 2012 state water plan, the ninth such plan compiled by the Texas Water Development Board (TWDB), is designed to meet the state's needs for water during times of drought, according to the plan's Executive Summary. This plan is based on the "drought of record," which occurred in the 1950s. Planning starts at the regional level with 16 regional water planning groups identifying water needs and recommending water management strategies to meet these needs. These groups represent the public, counties, agriculture, industry, the environment, municipalities, small businesses, water districts, river authorities, water utilities, groundwater management areas and electricity-generating utilities. Once each planning group adopts its regional water plan, it is sent to the TWDB for approval. The TWDB then develops the state water plan based on information from the regional water plans and other sources.

Edward G. Vaughn, TWDB's chairman, wrote in a letter at the beginning of the plan: "The primary message of the 2012 State Water Plan is a simple one: in serious drought conditions, Texas does not and will not have enough water to meet the needs of its people, its businesses, and its agricultural enterprises."

Below are excerpts taken from the Executive Summary of the *Water for Texas 2012* state water plan that highlight the most important points of water needs during times of drought. To read more, see *www.twdb.state.tx.us/wrpi/swp/draft.asp.*

How many Texans will there be?

The population in Texas is expected to increase significantly between the years of 2010 and 2060, growing from 25.4 million to 46.3 million people (see map on opposite page).

How much water will we require?

Although the population is projected to increase 82 percent over 50 years, water demand in Texas is projected to increase by only 22 percent, from about 18 million acre-feet per year in 2010 to a demand of about 22 million acre-feet per year in 2060. Demand for municipal water (including rural county-other) is expected to increase from 4.9 million acre-feet in 2010 to 8.4 million acre-feet in 2060. However, demand for agricultural irrigation water is expected to decrease, from 10 million acre-feet per year in 2010 to about 8.4 million acre-feet per year in 2060…

How much water do we have now?

Existing water supplies—categorized as surface water, groundwater, and reuse water—are projected to decrease about 10 percent, from about 17.0 million acre-feet in 2010 to about 15.3 million acre-feet in 2060.

Groundwater supplies are projected to decrease 30 percent, from about 8 million acre-feet in 2010 to about 5.7 million acre-feet in 2060.

Surface water supplies are projected to increase by about 6 percent, from about 8.4 million acre-feet in 2010 to about 9.0 million acre-feet in 2060.

Do we have enough water for the future?

We do not have enough existing water supplies today to meet the demand for water during times of drought. In the event of severe drought conditions, the state would face an immediate need* for additional water supplies of 3.6 million acre-feet per year with 86 percent of that need in irrigation and about 9 percent associated directly with municipal water uses. Total needs are projected to increase by 130 percent between 2010 and 2060 to 8.3 million acre-feet per year.

What can we do to get more water?

The strategies recommended by regional water planning groups would provide, if implemented, 9.0 million acre-feet per year in additional water supplies by 2060. Water management strategies can include conservation, drought management, reservoirs, wells, water reuse, desalination plants and others.

How much will it cost?

The estimated total capital cost of the 2012 state water plan, representing the capital costs of all water management strategies recommended in the 2011 regional water plans, is $53 billion. This amount represents about a quarter of the total needs for water supplies, water treatment and distribution, wastewater treatment and collection, and flood control required for the state of Texas in the next 50 years.

What if we do nothing?

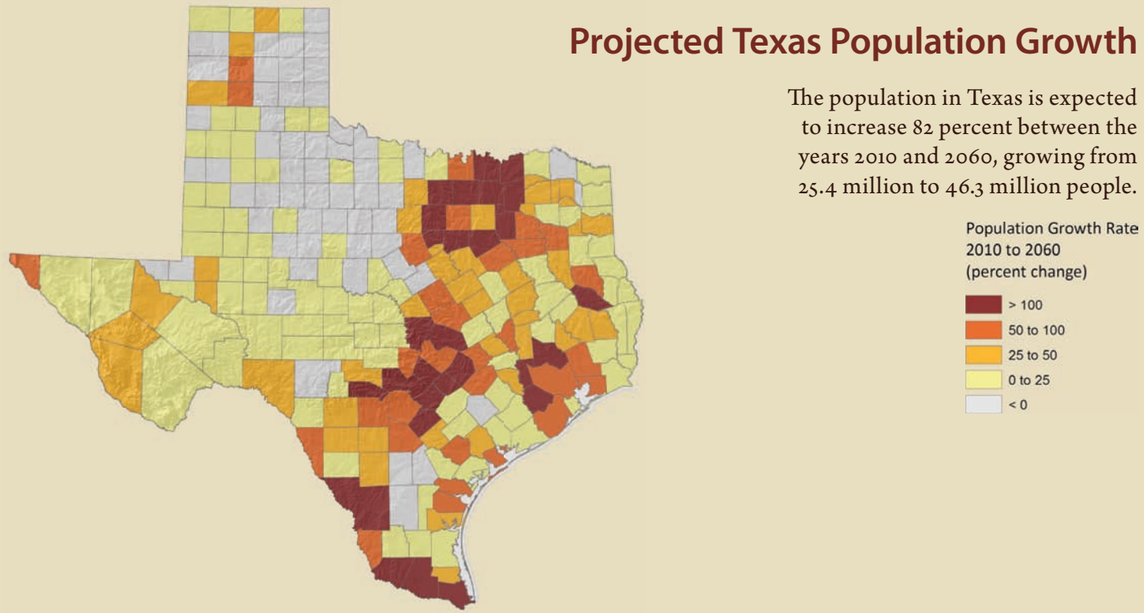
If drought of record conditions recur and water management strategies identified in regional water plans are not implemented, the state could suffer significant economic losses. If the drought affected the entire state like it did in the 1950s, economic models show that Texas businesses and workers could have lost almost $12 billion in income in 2010. By 2060 lost income increases to roughly $116 billion. Foregone state and local business taxes associated with lost commerce could amount to $1.1 billion in 2010 and $9.8 billion in 2060. Lost jobs total approximately 115,000 in 2010 and 1.1 million in 2060.

* Needs are projected water demands in excess of existing supplies that would be legally and physically available during a drought of record. Total water needs are greater than the difference in total water demand and total water supplies because not all existing supplies are available to all user groups. In East Texas there are many areas that have a surplus that can not necessarily be shifted to where there are greater needs in the western part of the state.

Maps adapted from the Texas Water Development Board's draft *Water for Texas 2012*. Maps created by Texas A&M University Institute of Renewable Natural Resources/ Texas Water Resources Institute.

Projected Texas Population Growth

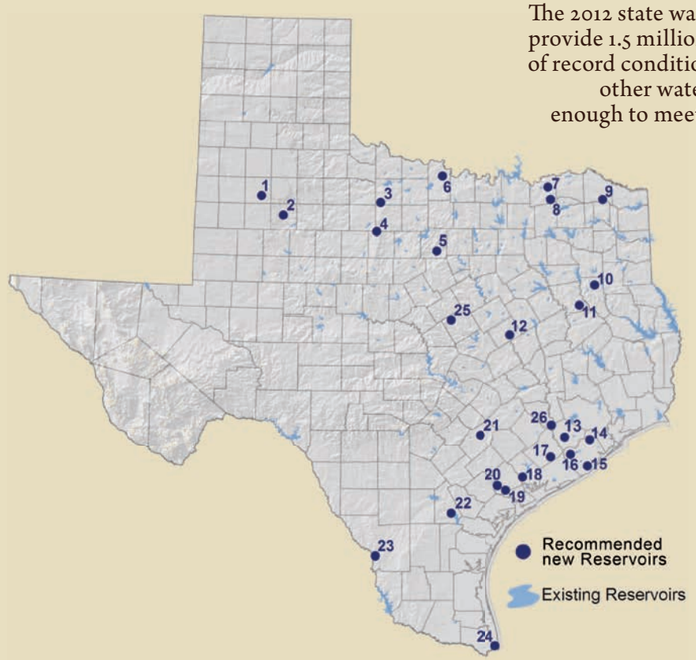
The population in Texas is expected to increase 82 percent between the years 2010 and 2060, growing from 25.4 million to 46.3 million people.



Recommended New Major Reservoirs

In 1950, the state had 50 major reservoirs; by 1980, the state had 179; and today, Texas has 188 major water supply reservoirs, with only a handful in some stage of planning or implementation. (page 18)

The 2012 state water plan recommends 26 reservoirs that would provide 1.5 million acre-feet of water during a repeat of drought of record conditions in 2060. In the absence of these reservoirs, other water management strategies would simply not be enough to meet the needs of Texans during a severe drought.



1 Jim Bertram Lake 07
2 Post Reservoir
3 Millers Creek River Augmentation
4 Cedar Ridge Reservoir
5 Turkey Peak Reservoir
6 Lake Ringgold
7 Lower Bois d'Arc Reservoir
8 Lake Ralph Hall
9 Marvin Nichols Reservoir
10 Lake Columbia
11 Fastrill-Replacement Project (Off-Channel)
12 Brushy Creek Reservoir
13 Fort Bend Off-Channel Reservoir
14 Brazoria Off-Channel Reservoir
15 Dow Off-Channel Reservoir
16 Gulf Coast Water Authority Off-Channel Reservoir
17 LCRA San Antonio Water System Project (Off-Channel)
18 Lavaca Off-Channel Reservoir
19 GBRA New Appropriation (Lower Basin, Off-Channel)
20 GBRA Exelon Project
21 GBRA Mid Basin Project (Off-Channel)
22 Nueces Off-Channel Reservoir
23 Laredo Low Water Weir
24 Brownsville Weir
25 Coryell County Reservoir (Off-Channel)
26 Allens Creek Reservoir